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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,384	09/05/2003	J.Kirk Haselden	MSFT-2555/304784.1	9572

41505 7590 04/18/2007		EXAMINER
WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891		PATEL, NIRAV B
	ART UNIT	PAPER NUMBER
	2135	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/656,384	HASELDEN ET AL.
	Examiner	Art Unit	
	Nirav Patel	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/1/07 (Amendment)*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment filed on February 01, 2007 has been entered. Claims 1-26 are pending. Claims 27-33 are canceled by the applicant and Claim 18 is also amended by the applicant.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 18-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 18 recites "A computer-readable storage medium having stored thereon an object model document for persisting an object model therein, the document comprising a compiled executable file having: an image source from which the persisted object model is instantiated in a memory of a computer; a security source from which a security agent is instantiated in the memory of the computer; the security agent for controlling access to the object model as instantiated in the memory of the computer; and a loader for being instantiated in the memory of the computer upon a command from a commander to execute the executable file to instantiate the persisted object model, the loader for instantiating the object model in the memory from the image source, instantiating the security agent in the memory from the security source, and returning to the commander a first reference to the instantiated security agent, whereby the commander in

employing the first reference accesses the security agent rather than the instantiated

object model". Claim 18 is merely stored so as to be read or outputted by a computer

without creating any functional interrelationship, either as part of the stored data or a s

part of the computing processes performed by the computer, and such descriptive

material alone doesn't impart functionality either to the data as so structured, or to the

computer. Therefore, claim 18 recites non-statutory subject matter.

Claims 19-26 depend on claim 18, therefore they are rejected with the same rationale

applied against claim 18 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 9-12, 17-21 and 26 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Grimm et al (US Patent No. 6,317,868) and in view of Golan (US

Patent No. 5,974,549).

As per claim 1, Grimm discloses:

an image source from which the persisted object model (i.e. software component) is instantiated in a memory of a computer; a security source from which a security agent is instantiated in the memory of the computer [Fig. 2, step 22 i.e. loads modified software component, which includes the original software component and the security operation, col. 5 lines 42-51, Fig. 5]; the security agent for controlling access to the object model as instantiated in the memory of the computer [col. 5 lines 44-46, col. 6 lines 42-47]; and a loader for being instantiated in the memory of the computer upon a command from a commander to execute the executable file to instantiate the persisted object model [Fig. 2, col. 4 lines 65-67, col. 5 line 1], the loader for instantiating the object model in the memory from the image source, instantiating the security agent in the memory from the security source [Fig. 2, loads modified software component, Fig. 5]. Grimm teaches the enforcement service and security policy service (i.e. security agent) for performing the access checks when the modified software component is executed [col. 2, 3, col. 6 lines 42-51]. Grimm doesn't expressively mention that returning to the commander a first reference to the instantiated security agent.

Golan discloses:

loading the software component (the executable code) into the memory [col. 8, lines 18-20], monitoring the execution of the software component associated with the application in accordance with a security policy [col. 3 lines 35-37] and intercepting the API call (i.e. request or command) by the security monitor (i.e. security agent) [Fig. 2, 4]; returning to the commander a first reference to the instantiated security agent, whereby the

commander in employing the first reference accesses the security agent rather than the instantiated object model [Fig. 4, col. 7 lines 44-57].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Golan with Grimm, since one would have been motivated to monitor the execution of the software component (i.e. object model) and provide the security [Golan, col. 3 lines 35-37].

As per claim 2, the rejection of claim 1 is incorporated and Golan discloses:

the executable file is compiled by a compiler from a C-type programming language object model document [col. 9 lines 56-67, col. 10 lines 1-18, Fig. 4].

As per claim 3, the rejection of claim 1 is incorporated and Golan discloses:

the loader upon instantiating the security agent provides same with a second reference to the instantiated object model, whereby the commander does not have the second reference and therefore cannot directly access the object model or command same to act [Fig. 4, col. 7 lines 50-57, Fig. 10].

As per claim 4, the rejection of claim 1 is incorporated and Golan discloses:

the instantiated security agent passes on each command (i.e. API call) from the commander to the object model unless such security agent deems such command to be of a type that should not be so passed on [col. 2 lines 43-47, 67, col. 3 lines 1-3].

As per claim 9, the rejection of claim 1 is incorporated and Grimm discloses:

the loader instantiates the security agent as part of the object model [Fig. 2, step 22, col. 5 lines 47-51 i.e. loads modified software component, which includes the original software component and the security operation].

As per claim 10, it encompasses limitations that are similar to limitations of claim 1. Thus, it is rejected with the same rationale applied against claim 1 above.

As per claim 11, the rejection of claim 10 is incorporated and it encompasses limitations that are similar to limitations of claim 3. Thus, it is rejected with the same rationale applied against claim 3 above.

As per claim 12, the rejection of claim 10 is incorporated and it encompasses limitations that are similar to limitations of claim 4. Thus, it is rejected with the same rationale applied against claim 4 above.

As per claim 17, the rejection of claim 10 is incorporated and it encompasses limitations that are similar to limitations of claim 9. Thus, it is rejected with the same rationale applied against claim 9 above.

As per claim 18, it encompasses limitations that are similar to limitations of claim 1. Thus, it is rejected with the same rationale applied against claim 1 above.

As per claim 19, the rejection of claim 18 is incorporated and it encompasses limitations that are similar to limitations of claim 2. Thus, it is rejected with the same rationale applied against claim 2 above.

As per claim 20, the rejection of claim 18 is incorporated and it encompasses limitations that are similar to limitations of claim 3. Thus, it is rejected with the same rationale applied against claim 3 above.

As per claim 21, the rejection of claim 18 is incorporated and it encompasses limitations that are similar to limitations of claim 4. Thus, it is rejected with the same rationale applied against claim 4 above.

As per claim 26, the rejection of claim 18 is incorporated and it encompasses limitations that are similar to limitations of claim 9. Thus, it is rejected with the same rationale applied against claim 9 above.

4. Claims 5, 13 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grimm et al (US Patent No. 6,317,868) in view of Golan (US Patent No. 5,974,549) and in view of Seeman (US Pub. No. 2003/0200459).

As per claim 5, the rejection of claim 4 is incorporated and Golan discloses blocking the API calls (i.e. commands) that are forbidden according to the security policy [col. 2 line 67, col. 3 lines 1-3]. Golan doesn't expressively mention that a type of command that would expose the object model in a non-obfuscated form.

Seeman teaches:

the security agent does not pass on to the object model a type of command that would expose the object model in a non-obfuscated form (i.e. clear form or decrypted form) [paragraph 0022 lines 13-16, paragraph 0165 lines 16-18 determines access/usage rights, if determines that the file may not be accessed, process monitor blocks further file reading i.e. does not perform the decryption process on the protected file/document].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Seeman with Grimm and Golan, since one would have been motivated to protecting the digital documents/files [Seeman, paragraph 0019 lines 2-3].

As per claim 13, the rejection of claim 12 is incorporated and it encompasses limitations that are similar to limitations of claim 5. Thus, it is rejected with the same rationale applied against claim 5 above.

As per claim 22, the rejection of claim 21 is incorporated and it encompasses limitations that are similar to limitations of claim 5. Thus, it is rejected with the same rationale applied against claim 5 above.

5. Claims 6, 7, 14, 15, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grimm et al (US Patent No. 6,317,868) in view of Golan (US Patent No. 5,974,549) and Masaki et al (US Patent No. 6,980,308).

As per claim 6, the rejection of claim 4 is incorporated and Golan discloses:

blocking the API calls (i.e. commands) by the security monitor that are forbidden according to the security policy [col. 2 line 67, col. 3 lines 1-3].

Masaki teaches:

if the degree of matching with the specified pattern is large (i.e. expose the object with a level of granularity finer than a pre-defined maximum), sends a print inhibition command to the printer driver to stop the transmission of the print data (i.e. does not pass a command) [col. 4 lines 1-5, col. 3 lines 9-13, Fig. 7].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Masaki with Grimm and Golan, since one would have been motivated to provide the security [Masaki, col. 1 line 13].

As per claim 7, the rejection of claim 6 is incorporated and Golan discloses:

allowing the API calls (i.e. commands) by the security monitor that are permitted according to the security policy [col. 3 lines 3-5].

the pattern detector does not detect a specified pattern (i.e. expose the object with a level of granularity coarser than the pre-defined maximum), sends a print permission

command to the printer driver to start the transmission of the print data (i.e. passes a command) [col. 3 lines 1-7, Fig. 7].

As per claim 14, the rejection of claim 12 is incorporated and it encompasses limitations that are similar to limitations of claim 6. Thus, it is rejected with the same rationale applied against claim 6 above.

As per claim 15, the rejection of claim 14 is incorporated and it encompasses limitations that are similar to limitations of claim 7. Thus, it is rejected with the same rationale applied against claim 7 above.

As per claim 23, the rejection of claim 21 is incorporated and it encompasses limitations that are similar to limitations of claim 6. Thus, it is rejected with the same rationale applied against claim 6 above.

As per claim 24, the rejection of claim 23 is incorporated and it encompasses limitations that are similar to limitations of claim 7. Thus, it is rejected with the same rationale applied against claim 7 above.

6.   Claims 8, 16 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grimm et al (US Patent No. 6,317,868) in view of Golan (US Patent No. 5,974,549) and in view of Dutta et al (US Pub. No. 2002/0138727).

As per claim 8, the rejection of claim 1 is incorporated and Golan discloses the security

agent (i.e. security monitor) and the object model (i.e. the software

component/application) [Fig. 1, 4].

Dutta teaches:

the loader instantiates the security agent (i.e. class public ServerClassM) separately

from the object model (i.e. Class public ClientClassA or Class public ClientClassB) [Fig.

4A, paragraph 0047, 0048, 0050].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to combine Dutta with Grimm and Golan, since one would have

been motivated to provide secure access control [Dutta, paragraph 0009 lines 4-5].

As per claim 16, the rejection of claim 10 is incorporated and it encompasses limitations

that are similar to limitations of claim 8. Thus, it is rejected with the same rationale

applied against claim 8 above.

As per claim 25, the rejection of claim 18 is incorporated and it encompasses limitations

that are similar to limitations of claim 8. Thus, it is rejected with the same rationale

applied against claim 8 above.

Response to Argument

7. Applicant's arguments filed February 1, 2007 have been fully considered but they are not persuasive.

Applicant has amended claim 18 to include the limitations "A computer-readable storage medium..." to correct the 35 U.S.C. 101 issue. However, the newly amended claim has not overcome such deficiency. See 35 U.S.C. 101 rejection above.

Regarding to Applicant's argument that Grimm and Golan fail to teach "an object model document comprising a compiled, executable file having the separate elements of an image source, a security source and a loader". In response to applicant's arguments, the limitation presented in the remark is not stated in a body of the claim. The Applicant is reminded that presented arguments in the remark is not considered unless stated clearly in the body of the claim. The recitation in the remark has not been given patentable weight because it occurred in the preamble of the claim. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Regarding to Applicant's argument that Grimm and Golan fail to teach "the instantiations in computer memory that include the loader, the object model, and the

security agent upon execution of the object model document". In response to applicant's arguments, Grimm teaches loading the software component and creating a modified software component as shown in Fig. 2. As shown in Fig. 2, a computer system to which the original software component was directed for execution issues a command to load the software component. The modified software component, which includes the original software component (the object model and the security operating/agent), is loaded for execution [Fig. 2]. Further, Grimm teaches executable files and data read for transfer into the memory and/or into storage on hard drive 306 of personal computer 300. When a software program is executed by CPU 323, the machine instructions comprising the program that are stored on a floppy disk, or on hard drive 306 are transferred into a memory 321 via data bus 303. In addition, Golan teaches memory allocation process by utilizing the CreateRemote Thread API. Once memory is allocated, a DLL loading function is copies into the memory just allocated. After the DLL load function is copies, a thread is created that executes the DLL loading function. The DLL loading function serves to load the security monitor DLL from disk storage [col. 8 lines 29-61]. Further, Golan teaches a call to CoGetClassObject() is steered to the Monitor_CoGetClassObject() function and each of the security monitor functions Monitor_CoGetClassObject(), calls the actual real API functions CoGetClassObject() [Fig. 10, col. 11 lines 45-64, Fig. 4]. Therefore, the combination of Grimm and Golan teaches the claim limitation "a loader for being instantiated in the memory of the computer upon a command from a commander to execute the executable file to instantiate the persisted object model, the loader for instantiating the object model in the

memory from the image source, instantiating the security agent in the memory from the security source, and returning to the commander a first reference to the instantiated security agent, whereby the commander in employing the first reference accesses the security agent rather than the instantiated object model" and the combination is sufficient.

For the above reasons, it is believed that the rejections should be sustained.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Krishnan et al (US 6405316) --- Method and System for injecting new code into existing application code.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any
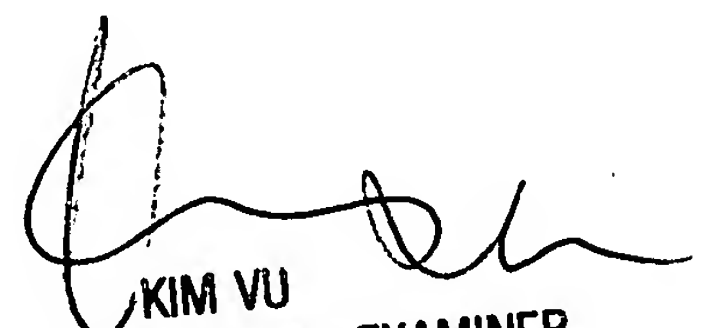
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav Patel whose telephone number is 571-272-5936. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

NBP
4/11/07

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